BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
WASHINGTON, DC 20551

Supervisory Stress Test Model Documentation

Proposed Model Changes for 2026 Stress Test

October 2025

This document summarizes the proposed changes that the Federal Reserve Board of Governors (Board) intends to make to the supervisory stress test models for the 2026 Supervisory Stress Test, as compared to the models used in the 2025 Supervisory Stress Test. Each section includes a summary of the model change and the rationale for the change. Documentation on the models that the Board intends to use in the 2026 Supervisory Stress Test is available at the following link: https://www.federalreserve.gov/supervisionreg/dfa-stress-tests-2026.htm.

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A. Proposed Changes to the Stress Test Modeling Framework

The Board is proposing to use the models described in the documents posted on the Board's website to generate results for the 2026 supervisory stress test.[1] Included in these descriptions are model specifications that were not used to conduct the 2025 supervisory stress test but are proposed to be used for the 2026 supervisory stress test. This section contains a description and rationale for each of these proposed model changes. In addition, the model descriptions for the Pre-provision Net Revenue Model and Operational Risk Model include additional information about significant proposed changes to those models, which are not fully detailed below. Complete details on these proposed changes are available at the following link: https://www.federalreserve.gov/supervisionreg/dfa-stress-tests-2026.htm.

i. General Model Changes

a. Use of Geography in Scenario Variables

The First Lien, Home Equity, Credit Cards, Auto, and Commercial Real Estate Models used in the 2025 supervisory stress test incorporated macroeconomic variables at the sub-national level, such as the state- or county-level, to project losses on applicable exposures. In 2025, the Board projected sub-national macroeconomic variables using a regression framework based on historical correlations of a given variable in the region compared to its corresponding national index. This framework causes differences in scenario severity across regions. For example, the framework may assume that house price declines in one state during the severely adverse scenario are more severe than that of another state based on historical correlations between the national house price index and the house price index of each state. Given that the

[1] *See* https://www.federalreserve.gov/supervisionreg/dfa-stress-tests-2026.htm.

regional concentrations of firm portfolios differ, these inconsistencies can extend to firm-level loss projections. As a result, firms concentrated in certain regions (states or counties) receive scenario paths more severe than the national path and are assigned higher projected losses than that of firms concentrated in certain regions (states or counties) that receive scenario paths less severe than the national path. However, in reality, the states and counties with the most severe macroeconomic paths during a recession can vary substantially over time and based on the specific factors that precipitate a given recession. Therefore, the assumption that states and counties with historically more severe macroeconomic paths will have more severe macroeconomic paths during future recessions may not be appropriate.

To mitigate the impact of these differences and align with the principle of consistency and comparability from the Stress Testing Policy Statement, the Board is proposing that the 2026 supervisory stress test would apply a common national path to all regions based on the change from the local starting point. This model change would remove model-induced geographic variation while continuing to consider location-specific historical data when estimating the model parameters by using state- or county-level data to estimate such model parameters in some models. As a result, compared to an alternative third approach in which location-specific historical data were not considered, the models would not have to rely on only national-level variables when producing projections, which would reduce the accuracy of the projections.

For variables for which the level of the variable has an intuitive meaning (that is, variables that are not indices—for example, the unemployment rate and commercial real estate vacancy rate), the Board is proposing to assume that each region has the same change in the level of the variable as the change in the national level in each quarter. For variables that are specified as an index (for example, house price index, commercial real estate price index, and commercial

real estate rent index), the Board is proposing to assume that each region has the same percentage change as the percentage change in the national index in each quarter. These revisions would mitigate the impact of the existing inconsistencies between national and sub-national level variables.

b. Foreclosures under Judicial Supervision

As described in the comprehensive model documentation, the First Lien and Home Equity models include a variable in certain equations to identify whether a loan is in a U.S. state in which foreclosure is conducted under judicial supervision (judicial state). The distinction between judicial and non-judicial states in mortgage loss models is consistent with academic literature,[2] and can affect the loss projections for these loans. Even though the Board draws the definitions from academic literature, there can still be ambiguity in between the definitions of judicial and non-judicial states, and practices vary across U.S. states even within states with judicial (or non-judicial) foreclosure legal regimes. For instance, certain states may have legal avenues for non-judicial foreclosure, even if they are not widely used. Additionally, states can transition from judicial to non-judicial, or vice versa, over time.

To prevent these potential ambiguities from resulting in differential treatment for loans in different states, the Board is proposing, instead of directly applying in the equations whether a loan is in a judicial state, to calculate the share of loans across the entire portfolio that are in judicial states (using the same definitions as the current model) and assign that share to all observations when producing model projections. For example, under the current 2025 model, if two loans were identical, except that one loan was secured by a property in a judicial state, while

[2] *See* Larry Cordell, Lauren Lambie-Hanson, "A cost-benefit analysis of judicial foreclosure delay and a preliminary look at new mortgage servicing rules," Journal of Economics and Business, Volume 84, 2016, pp. 30–49.

the other was secured by a property in a non-judicial state, the loan secured by the property in a judicial state would receive higher loss projections. The proposed 2026 approach would lead to relatively higher loss projections for the loan secured by the property in a non-judicial state, and relatively lower loss projections for the loan secured by the property in a judicial state, such that the two loans would receive the same projected losses.

While the calculation of this share would still be subject to the determination of which states are judicial states, the use of a single, aggregated judicial state share for all loans would reduce the sensitivity of the model projections to the determinations in these cases. Effectively, the proposed approach would treat each loan as if it is probabilistically located in a judicial state, where the probabilities are set based on the share of all loans in the portfolio that are in judicial states. This revision would better align with the principle of consistency and comparability from the Board's Stress Testing Policy Statement.

c. Country-Specific Loss given Default

The Commercial Real Estate and Corporate Models used in the 2025 stress test included country-specific loss-given default scaling factors for loans. The purpose of this scaling factor is to account for differences in the process for resolving troubled loans across countries. As a result, loans in countries with higher scaling factors may be assigned higher projected loss given default than the model otherwise would assign. Upon review, this assumption has led to structural differences in loss given default across countries that can result in differential treatment. To avoid any potential model-induced differential treatment for loss given default, the Board is proposing for 2026 to remove the country-specific scaling factor and instead apply the model-projected loss given default for all loans. This revision would better adhere to the Board's

principles of simplicity, as well as consistency and comparability, from the Stress Testing Policy Statement.

ii. Retail Credit Risk Model Changes

a. First Lien Model: Simplification of Mortgage Loss given Default

The Board is proposing to simplify the mortgage loss given default model in the First Lien Model. The First Lien Model projects loss given default for domestic first lien and domestic home equity exposures using a two-stage approach. In the first stage (timeline model), the length of time projected to elapse between default and liquidation is assigned (liquidation timeline). In the second stage (loss severity model), the liquidation timeline, as well as other loan, borrower, and macroeconomic characteristics, is used to project the loss severity of a loan. The Board is proposing to replace the timeline model with a single liquidation timeline that will be assigned to all loans projected to default during the projection horizon.

The timeline model is estimated using an "accelerated failure time" approach, under which liquidation timelines are projected using various loan, borrower, and macroeconomic characteristics, such as mark-to-market loan-to-value ratio, borrower credit score, and the change in the state-level unemployment rate. However, the timeline model has a complicated structure and has limited sensitivity to the variables used in the model. Additionally, when the timeline model is applied to loans that liquidated in recent years, it tends to overstate observed liquidation timelines and therefore, overstate loss given default for these loans.

Additionally, the timeline model separately projects liquidation timelines depending on whether the loan is in a state in which foreclosure is conducted under a judicial state. This distinction affects the liquidation timelines, and therefore the loss projections, for these loans.

The definitions of states that are judicial states is consistent with academic papers;[3] however, the Board is aware that there can be ambiguity in these definitions, as described in the comprehensive model documentation.

Due to these concerns, and in line with the principle of simplicity in the Stress Testing Policy Statement, the Board is proposing for 2026 to replace the timeline model used in 2025 with a simple assumption that a single liquidation timeline will be assigned to all loans projected to default during the projection horizon. This timeline is calibrated based on the 75th percentile liquidation timeline among loans that liquidated between 2005 and 2019, a range that includes many different phases of the business cycle but intentionally excludes the COVID-19 pandemic period. The COVID-19 pandemic period is excluded because unprecedented distortions in the mortgage market, such as forbearance and foreclosure moratoria, substantially extended observed liquidation timelines (see the comprehensive model documentation for more details). The Board determined that it was unlikely these lengthy liquidation timelines would be repeated during a future stress event. The 75th percentile is used in line with the principle of conservatism in the Stress Testing Policy Statement and produces loss given default projections that are in line with historically observed values.

b. First Lien and Home Equity Models: Accrued Interest

The Board is proposing to stop including losses attributable to accrued interest and carrying costs in the First Lien Model and accrued interest in the Home Equity Model for the 2026 stress test. The First Lien Model includes losses attributable to accrued interest (interest that is accrued but unpaid) and carrying costs (implicit costs incurred based on the delay between when the loan defaults and when the proceeds from the sale of the property are received by the

[3] *See, e.g.,* Cordell and Lambie-Hanson (2016).

firm).[4] The Home Equity Model also includes losses attributable to accrued interest; it does not include losses attributable to carrying costs, because the Board has assessed that the impact of carrying costs on home equity exposures is immaterial.

The Board is proposing this change for two reasons. First, these costs may already be captured in the Pre-provision Net Revenue Model to the extent they are incurred during the projection horizon, and the impact of these costs from loans defaulting during the projection horizon but liquidating after the projection horizon are small. Including these losses in the output of these models thus risks double-counting the impact of accrued interest and carrying costs. Second, accounting for these costs adds complexity to the model. As a result, the proposed change would better align with the principle of simplicity from the Stress Testing Policy Statement.

c. Credit Card Model

(1) General Revisions

The Board is proposing to revise the Credit Card Model's bank card model in several ways. First, the Board is proposing to update the bank card probability of default and exposure at default components of the bank card model to incorporate data from more recent periods in the estimation of the moiendel. The bank card model used in the 2025 stress test did not incorporate data from 2020 and after because the model had not been re-estimated since prior to 2020. However, the Board is proposing to use data through June 2023 to calibrate the model cocyients for the 2026 stress test cycle. This revision would allow the model to capture the impacts of the COVID-19 pandemic and recent increases in interest rates and inflation.

[4] Carrying costs are only included if the First Lien Model projects that they will be incurred after the projection horizon, because carrying costs incurred during the projection horizon may be captured in the Pre-provision Net Revenue Model.

Second, the Board is proposing to add an indicator variable to the probability of default component to reflect the differences in default probability during the pandemic period. This change would account for the breakdown in the historical relationship between unemployment rate and credit card defaults, in part driven by government support programs that were made available during this period, in 2020 and 2021. This indicator variable interacts with the change in the unemployment rate in the quarter of default to reflect this breakdown in the historical relationship between the unemployment rate and credit card defaults. Without this indicator variable, the model would lose significant sensitivity to changes in the unemployment rate, limiting its ability to evaluate the impact of severe economic stress, as described in the Board's Stress Testing Policy Statement. The inclusion of the additional periods of data would align with the principle of robustness and stability from the Board's Stress Testing Policy Statement, as a broader set of economic conditions would be incorporated into the model.

Finally, the Board is also proposing minor adjustments to the filters applied to the data when updating the model coefficients used in the bank card model. First, the Board is proposing a standard approach for including (or excluding) a firm's data when re-estimating the model coefficients. The bank card model used for the 2025 stress test incorporates all firms that were reporting FR Y-14M, Schedule D (Domestic Credit Cards) as of the time the coefficients were estimated and had at least 27 months, or nine quarters, of reporting history (consistent with the length of the projection horizon). However, this list of reporters can change over time, and coefficient estimates can vary depending on which firms are included. The proposed approach incorporates all firms that have reported data for at least 12 consecutive months at any point between June 2013 (the first period of FR Y-14M historical data used to calibrate the coefficients) and the last period used to estimate the coefficients (which is currently June 2023).

The proposed approach produces a more stable estimation sample, in line with the stress testing principle of simplicity. Second, the Board has identified circumstances in which the historical data inappropriately contained changes to the credit limit when the credit limit had not in fact changed. This appears to have occurred especially for delinquent accounts, as well as current accounts with balances above the previously-reported credit limit. Taken together, these revisions would improve the accuracy of the model.

(2) Treatment of Continuous Variables

The Board is also proposing to update the treatment of continuous variables by the Credit Card Model's bank card model to improve the model's sensitivity to changes in the value of such variables and to prevent the model from producing large changes in projections.

The Credit Card Model's bank card probability of default and exposure at default components include certain variables that take on a numerical range (i.e., continuous variables), namely utilization, credit limit, credit score, and account age. The model used in the 2025 stress test cycle accounted for these variables by grouping them into bins. In effect, all values of the variable within a defined bin are treated identically. In the case of the bank card exposure at default model, the model uses different equations for projecting exposure at default based on the credit limit bin into which the account falls. While the treatment of continuous variables in the current model produces reasonable results on average, it does not account for differences in risk within a defined bin. Furthermore, the current model produces large changes in loss projections based on small changes in the underlying variable when the change in the value of the variable shifts an account from one bin into another bin.

To improve the model's sensitivity to changes in the value of continuous variables and prevent the model from producing large changes in projections when accounts shift from one bin to another, the Board is proposing to update the treatment of continuous variables by the model. In particular, the Board is proposing in 2026 to include these variables in their continuous forms in the model, which would allow for more granular changes in values of variables to impact model projections. Because the Board has observed that the sensitivity of probability of default and exposure at default to these variables can vary over their ranges, the model uses a statistical feature known as piecewise linear splines when specifying these variables. As a result, the proposed model would no longer produce large changes in projections due to small changes in variable values near the edges of bins, would increase the model's sensitivity to more granular changes in the value of these variables within a given bin, and would retain the ability to account for differences in sensitivity of the model to these variables at different values. This revision would better adhere to the Stress Testing Policy Statement's principle of robustness and stability, as it would more accurately project underlying risks of firms.

(3) Harmonizing Credit Card Delinquency Definitions

The Board is proposing to update the Credit Card Model's bank card model to standardize the variables used to define delinquency.

The instructions for FR Y-14M, Schedule D.1 (Domestic Credit Cards – Loan Level) include multiple fields that can be used to assess the delinquency status of a credit card account. Schedule D.1, item 86 ("cycles past due at cycle date") captures the number of billing cycles an account is past due as of the end of the month's billing cycle. Schedule D.1, Item 87 ("cycles past due at month-end") captures the number of billing cycles an account is past due at the end of

the calendar month. Finally, Schedule D.1, item 53 ("days past due") captures the actual number of days an account is past due at the end of the month's billing cycle (or the end of the month, if cycle-ending information is not available). While these variables can all be used to assess delinquency status, the choice of variable can result in slight differences in the accounts defined as current, delinquent, or in default because of differences in the definitions of these fields. For instance, certain accounts may cure their delinquency between the end of the billing cycle and the end of the month.

The current Credit Card Model used in the 2025 stress test generally defines bank cards as in default, for the purposes of supervisory stress test modeling, when they are 120 days or more past due, in bankruptcy, or charged off; as delinquent generally when they are not in default and are between 30 and 119 days past due; and as current generally if they are not considered in default or delinquent. However, different components of the model use different variables to proxy for whether an account is 30–119 days past due, or more than 120 days past due. In certain cases, the "days past due" variable is directly used, while in others, the Board uses the number of cycles an account is past due to proxy for the number of days it is past due.

The Board is proposing in 2026 to update the model as it applies to bank cards to standardize the variables used to define delinquency. In particular, the Board is proposing to rely on the variable "cycles past due at cycle date" when it is available, and to use "cycles past due at month-end" otherwise. An account would be presumed to be 30–119 days past due when it is 2, 3, or 4 cycles past due per these variables. Similarly, an account would be presumed to be 120 or more days past due when it is 5 or more cycles past due per these variables. These definitions would align with the stress testing principles of consistency and comparability, as well as

simplicity, as it would remove discrepancies that arise from definitions of delinquency that vary across model components.

d. Auto Model

In addition to auto loans, auto leases reported in FR Y-9C, Schedule HC-C, item 10(a) ("Leases to individuals for household, family, and other personal expenses") are reported in FR Y-14Q, Schedule A.1 (International Auto Loan), FR Y-14Q, Schedule A.2 (U.S. Auto Loan), and in FR Y-14Q, Schedule M.1 (Balances). Because auto leases represent just 2 percent of combined auto loan and lease balances, the current 2025 model does not project losses on auto leases reported on these schedules. This treatment effectively assigns a loss rate of 0 percent to auto lease balances in the supervisory stress test.

However, this treatment is inconsistent with the historic behavior of auto leasing because auto lease balances have historically incurred losses. To align with the principle of robustness and stability, the Board is proposing in 2026 to assign the loss rate based on each firm's auto loans to their auto lease balances. Historical data reported on FR Y-14Q, Schedule A.2 shows that auto leases and auto losses have comparable net charge-off rates. More specifically, auto lease loss rates historically tend to be slightly lower than auto loan loss rates, but not substantially so, and not in all periods. As a result, applying the same loss rate to auto loans and leases would reflect a simplicity consistent with the principle as expressed in the Board's Stress Testing Policy Statement.

e. *Provisions for Credit Loss Model*

The Board is proposing to simplify and update the multipliers used in the Provisions for Credit Loss Model for the 2026 stress test cycle.

Most of the models that project losses for loans held at amortized cost use an expected loss approach, which projects losses based on the probability of default, loss given default, and exposure at default for each of the loans in the portfolio. By contrast, the Other Retail Model uses a net charge-off approach in which the model directly uses historical net charge-offs to project net charge-offs in the future. As a consequence, the timing that losses will be incurred over the projection horizon may differ between approaches. In particular, the timing of net charge-offs can be subject to firm discretion, and often lags loan defaults in the historical data, particularly during periods of economic stress. To account for these timing differences, the Board currently adjusts projected allowances on portfolios modeled using a net charge-off approach in the Provisions Model, scaling up the allowance using a multiplier to account for the potential delay in the realization of net charge-offs. The amount by which the allowances are scaled up is referred to as a "multiplier." Applying the multiplier effectively pulls forward the provisions on these portfolios, mitigating the impact of the late realization of losses on portfolios using a net charge-off approach.

Currently, this multiplier is set separately for each portfolio to reflect different assumptions about the relationship between portfolio characteristics and net charge-off timing. For example, loans that are secured by collateral may be subject to a longer delay than unsecured loans and so portfolios with a higher share of secured loans may receive a higher multiplier. These multipliers are calibrated using Board analysis of historical FR Y-14 data and other independent sources.[5]

[5] KPMG, LLP, "KPMG LLP Credit Risk Management Practices 2012 Survey on the Allowance for Loan and Lease Losses" (2013), https://assets.kpmg.com/content/dam/kpmg/pdf/2013/09/survey-allowance-loan-lease-losses-2012.pdf.

However, due to limited available data for the Other Retail Models, validating the calibration of these multipliers over time is challenging. This limitation raises concerns that the multipliers may over- or understate the impact of timing delays in certain portfolios. Furthermore, for certain portfolios with net charge-off models, such as the Other Retail Model, that use scalar models (as opposed to regression models—see comprehensive model documentation for more details, including the portfolios that use each type of model), the net charge-off rate assigned in the supervisory stress test is set based on the entire business cycle, and therefore already accounts for any timing delays associated with a net-charge off approach.

Due to these concerns, the Board is proposing for 2026 to simplify and update the multipliers. For portfolios that use scalar models, the Board is proposing to remove the multipliers and treat losses generated by these models identically to those generated by expected loss models when calculating allowances and provisions, as the calibration of these scalar models already accounts for any delay in the realization of losses on these portfolios. For other portfolios that use regression models, the Board has updated its analysis of the 2007–2009 crisis data and proposes to use this analysis to calibrate a single multiplier for all portfolios. Based on the Board's analysis, the multiplier for these portfolios will be set to 1.15x. This value of 1.15x is supported by historical data on credit card accounts reported on the FR Y-14Q, as well as data on credit card accounts sourced from a government agency. That data shows that early during the 2007–2009 crisis, the rate at which accounts defaulted was greater than the rate at which they were charged-off due to delays in the recognition of charge-offs. As the 2007–2009 crisis period progressed, that trend reversed, and the rate at which net charge-offs were recognized was higher than the rate at which balances defaulted. The value of 1.15x reflects the maximum of the ratio of the four-quarter average default rate to the four-quarter average net charge-off rate observed

during the 2007–2009 crisis. This new 2026 multiplier value would provide more consistent treatment across portfolios and is easier to validate, compared to the multipliers used in the current 2025 model.

It is plausible that this multiplier value could lead to overly conservative treatment of balances to which it applies, especially in the later quarters of the projection period, as net charge-off recognition catches up to defaults. However, this would be mitigated by the fact that the multiplier would be calibrated based on credit card accounts, which have shorter loss emergence periods than other loan categories, as observed in the FR Y-14 data and data from independent sources referenced in note 5. The use of multipliers and the proposed adjustment to the multipliers would be consistent with the principle of conservatism from the Board's Stress Testing Policy Statement given concerns that losses projected by a net charge-off approach may be delayed compared to losses projected by an expected loss approach. The proposed changes would also be consistent with the principle of simplicity, as they would replace portfolio-specific multipliers with a single multiplier applied to all portfolios for which a multiplier is appropriate. Finally, given concerns that data limitations present challenges to calibrating the portfolio-specific multiplier, this change would be consistent with the principle of consistency and comparability by helping to ensure that loans in different portfolios are not treated inconsistently without strong evidence that the differential treatment is justified.

iii. Wholesale Credit Risk Model Changes

a. Corporate Model

The Board is proposing to substantially update the probability of default and loss given default components in the Corporate Model to address concerns regarding stability, complexity,

and firm-specific treatments. The Board is also proposing to make several revisions to the exposure at default component in the Corporate Model.

(1) Probability of Default and Loss Given Default

For example, to align with the Stress Testing Policy Statement's principle of simplicity, the Board is proposing to estimate probability of default by broad external credit rating segments, instead of the Board's current approach that segments by probability of default percentile. The probability of default component used in the Corporate Model accounts for differences in credit quality by estimating separate parameter estimates by percentiles of probability of default from a third-party vendor. Probability of default percentile segments are mapped to a measure of credit quality—a common aggregate risk rating scale—for facilities in FR Y-14Q, Schedule H.1 (Corporate). This allows corporate loss estimates to account for credit quality differences across portfolios while maintaining consistent treatment across firms. Differentiating credit risk by ratings segment would allow loss estimates to account for credit quality differences across portfolios while maintaining consistent treatment across firms without the need to map probability of default percentiles to a common rating scale. The percentile segment mapping process introduced model complexity, required additional assumptions, and increased operational challenges for model implementation. Combining more granular ratings into an aggregate common scale would address data scarcity issues at both the upper and lower ends of the rating spectrum, which would improve robustness and stability, while simultaneously simplifying mapping obligor internal risk ratings to the common scale.

As an additional example, to align with the Stress Testing Policy Statement's principle of robustness and stability, both the probability of default and loss given default components would

rely on the BBB spread as the primary macroeconomic risk factor under the proposed change. The BBB spread has been the most stable and consistent variable representing macroeconomic risk across different specification and modeling approaches for corporate default and loss. Macroeconomic variables that describe real economic activity (e.g., unemployment, GDP, inflation, etc.) often display unstable and counterintuitive effects when the estimation sample includes the COVID-19 pandemic due to the unusual economic circumstances of that period. The BBB spread is a strong, standalone financial summary variable that allows the COVID-19 pandemic to be included without having to control for the idiosyncratic behavior of real economic variables. This approach eliminates less reliable explanatory factors, simplifying the specification and allowing for a more straightforward interpretation of BBB spread's effect on probability of default and loss given default. This revision would therefore simplify the models and foster a better evaluation of the impact of severe economic stress.

(2) Exposure at Default

The Board is also proposing to set exposure at default equal to the outstanding balance if the outstanding balance is equal to or greater than 100 percent of the committed balance and calculate exposure at default using loan equivalent factor if the outstanding balance is less than 100 percent of the committed balance. This revision would ensure that exposure at default is more accurately captured for applicable corporate loans.

Additionally, the Corporate Model's projection of exposure at default applies a special treatment to trade finance and standby letters of credit by setting loan equivalent factor to 100 percent. However, based on Board analysis, the Board is proposing to remove the special treatment, effectively changing loan equivalent factor to 50 percent, which is more aligned with

observed data. While the 50 percent value is less conservative, the Board's analysis indicates that the 100 percent assumption may have been overly conservative in terms of calculating exposure at default for corporate loans. This revision would not materially impact corporate losses in the supervisory stress test.

The Board is also proposing to change the calculation to determine the 90th percentile of losses for corporate loans with missing committed balances, which is described in the comprehensive model documentation. Based on data since 2021, the Board is proposing to change the assumption for committed balances from three times utilized exposure to five times utilized exposure. This revision would be more reflective of recently observed data and better align the Corporate Model's exposure at default model with the Board's principle of conservatism from the Stress Testing Policy Statement.

iv. Market Risk Model Changes

The Board is proposing to update several of its market risk models for the 2026 stress test. These changes address concerns regarding stability, complexity, and consistency across different model suites and bring better alignment with Board stress testing principles.

a. Yield Curve Model

The Yield Curve Model is used to project a full set of U.S. Treasury yields by maturity, corporate yields by credit rating and maturity, as well as Secured Overnight Financing Rate (SOFR) swap and Term SOFR rates by maturity, conditional on a given macroeconomic scenario. These projections are used by the Securities Model, Fair Value Option Model, and the Pre-provision Net Revenue Model when calculating losses. The Yield Curve Model used in the 2025 stress test is an arbitrage-free Nelson-Siegel model variant, wherein risk-free and corporate

yields follow an integrated stochastic process, against which projected curve realizations are estimated conditional on (i) historically observed yield dynamics, in conjunction with (ii) the yield trajectories provided in a given macroeconomic scenario. There is no closed form solution available to determine exact values for the parameters of this model. Instead, a complex and computationally intensive numerical routine is required to produce parameter estimates, which are subject to estimation uncertainty and may be driven in part by parameter estimates determined in prior stress tests, resulting in low replicability; an external party would be significantly challenged to reproduce model estimates, given their dependence on extensive implementation and execution detail in respect of parameter estimation.

To simplify the projection of U.S. Treasury and SOFR rates and improve replicability, the Board is proposing to utilize a simpler Nelson-Siegel level, slope, curvature formulation, without arbitrage constraints, and only three parameters requiring estimation per projection quarter, to interpolate and extrapolate the macroeconomic scenario provided U.S. Treasury yields for 3-month, 5-year, and 10-year maturities. The Board is further proposing to project SOFR rates by maintaining them at fixed spreads to projected U.S. Treasury yields - using the spreads by maturity observed at the jump-off point for a given stress test and holding these spreads constant throughout the projection horizon.

These simplifications are beneficial because they result in U.S. Treasury and SOFR yield projections that, while still preserving the core character of the key U.S. Treasury and SOFR yields explicitly included in the macroeconomic scenario, can be precisely replicated, via a significantly reduced number of parameters, which are simple to calculate and interpret.

To simplify the projection of corporate yields in the proposed model, spreads between corporate and U.S. Treasury yields for bonds with different credit ratings would be anchored to

those explicitly depicted in the macroeconomic scenario (for example, spreads for BBB-rated credits), with linear scaling to capture greater or lesser degrees of credit spread widening across the rating spectrum in response to macroeconomic stress, aligning with the methodology already utilized in the Securities Model, to project credit spreads for a variety of debt securities, including municipal bonds and structured products. This simplified approach to projecting corporate yields is beneficial because it follows a consistent method relative to other credit spread spreads projected in the stress test and is simple to replicate and interpret while preserving the core character of corporate credit spread outcomes depicted in the macroeconomic scenario. These revisions would align with the Board's principles of consistency and simplicity since they would employ a less complex methodology, already in use for projecting similar quantities elsewhere in the stress test.

b. Credit Valuation Adjustment Model

The Board is proposing to adjust its process for projecting credit valuation adjustments for derivative positions when critical exposure inputs are missing or materially incomplete. The adjustment leads to more stable and robust projections.

c. Fair Value Option Model

The Board is proposing to lower the loss given default assumption amount and loan equivalent factor parameter in the Fair Value Option Model for the 2026 stress test.

(1) Loss Given Default

The Board is proposing to lower the loss given default assumption amount in the Fair Value Option Model. Loss given default is a key factor in the calculation of losses in the Fair Value Option Model. In the current Fair Value Option Model, the loss given default is set to 75

percent of the outstanding loan balance at the time of default and is applied uniformly to all loan defaults projected by the Fair Value Option Model. The 75 percent assumption was originally chosen to reflect an upper bound for losses during the crisis periods. However, the Board is now proposing to lower the assumption amount to 50 percent based on empirical analysis of historical recoveries on corporate loan and bond defaults covering multiple economic cycles since 1989. This analysis suggests that 50 percent, while less conservative, is more closely aligned to expected fair value option loan portfolio losses under economic stress, and hence more consistent with the Board's principles, as set forth in the Stress Testing Policy Statement.

(2) Loan Equivalent Factor

In the current Fair Value Option Model, the draw rate assumed against unused corporate loan commitments, parametrized as a loan equivalent factor, is an important factor in the calculation of losses and set conservatively to 100 percent of the total unutilized commitment amount for a given loan. The Board is proposing to lower the loan equivalent factor parameter to 65 percent based on empirical analysis of commitment utilization rates reflected in FR Y-14Q, Schedule H (Wholesale Risk) data. This analysis suggests that 65 percent, though less conservative, is more closely aligned to expected outcomes under economic stress, and hence more consistent with the Board's principles.

d. Securities Model

(1) Credit Loss

The Board is proposing to update and simplify the Securities Credit Loss Model that estimates credit losses for available-for-sale and held-to-maturity securities. The current Securities Credit Loss Model is calibrated to a series of historical other-than-temporary

impairment data that is no longer reported on the FR Y-14Q because the other-than-temporary impairment accounting paradigm was superseded following the introduction of CECL. Therefore, the Board is proposing to update and simplify the Securities Credit Loss Model to estimate credit losses for available-for-sale and held-to-maturity securities with a method that no longer relies on other-than-temporary impairment data. Specifically, the Board is proposing to project expected credit losses based on probability of default, recovery rate, and amortized cost. For debt securities that are not securitized products, projections for probability of default and recovery rate would be tied to the macroeconomic scenario. For securitized products, constant probabilities of default and constant recovery rates would be applied. An allowance for credit losses would be determined by summing credit losses expected over a 4-quarter look-ahead period, consistent with the way credit losses on loans are computed elsewhere in the banking book in the supervisory stress test. A charge-off would be determined that is equal to the projection for credit losses in the current quarter. Given the relatively low materiality of credit-sensitive exposures addressed by the Securities Model, this revision would align with the Board's principles of simplicity and consistency as the calculation of credit losses would be similar across securities and loans.

(2) Securities Reinvestment

The Board is also proposing to modify the constant portfolio assumption currently employed in the Securities Model for projecting other comprehensive income for available-for-sale debt securities. Under the constant portfolio assumption, the amortized cost and face value of each security are frozen at their values on the jump-off date of the stress test and are held constant over the projection horizon. In addition, time until maturity and duration are also

predominantly frozen,[6] so that starting available-for-sale debt holdings generally do not age or mature throughout the projection horizon, and thereby present constant duration risk over successive projection quarters. The constant portfolio assumption is a simplification that, while avoiding the introduction of explicit reinvestment assumptions, is intended to approximate other comprehensive income consistent with a program of reinvestment undertaken to maintain a firm's starting exposure profile. The effectiveness of this approximation varies however, and other comprehensive income may be significantly mischaracterized under the constant portfolio assumption in certain cases. For example, in a scenario where risk-free yields are projected to fall sharply at the beginning of the projection horizon without retracing in later projection quarters, the constant portfolio assumption may produce material additions to accumulated other comprehensive income (reflecting a rally in debt securities in proportion to their durations) that persist over the projection horizon without reversal, when in practice the initial impact of a sharp and sustained drop in yields would be tempered by the passage of time, with fair values converging back towards amortized cost and par as securities age and mature or paydown.

To ensure appropriate capture of other comprehensive income across a wider range of potential scenarios, the Board is proposing to relax the constant portfolio assumption for available-for-sale U.S. Treasury securities and Agency mortgage-backed securities.[7] Instead of holding each security's face value and amortized cost constant when projecting other comprehensive income, the Board would instead model fair value and amortized cost reflective of security aging and maturities or paydowns, while adopting explicit reinvestment assumptions

[6] Agency mortgage-backed securities are an exception because projected prices (fair values per unit of outstanding face amount) do incorporate security aging and paydown, while the face value (against which these prices are applied to determine dollar fair value) and amortized cost of each security are held constant.

[7] Together, these securities account for most of the other comprehensive income at firms. The constant portfolio assumption would remain in place for other available-for-sale debt securities.

for returned principal amounts—maturing Treasuries and agency mortgage-backed security paydowns would be uniformly reinvested in 1-year Treasuries. This methodology, though introducing a small number of additional assumptions pertaining to reinvestment, would more reliably support reasonable other comprehensive income projections over the full projection horizon under various interest rate and mortgage spread paths, as the methodology would explicitly account for interactions between portfolio aging and the scenario variables that impact other comprehensive income. As a result, the Securities Model would better capture the effect of economic stress consistently and comparably across firms, in accordance with the Board's principles from the Stress Testing Policy Statement.

e. Exclusion of Sovereign Counterparties from the Largest Counterparty Default Component

The Board is also proposing to modify the list of counterparty exclusions currently used to calculate losses for the largest counterparty default component.[8] Under the current model exposures belonging to qualifying central counterparties, countries of the G7 (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States), intermediate holding company (IHC) affiliates, as well as some multilateral development banks and supranational entities (International Bank for Reconstruction and Development, International Monetary Fund, Bank for International Settlements, European Commission, and European Central Bank), are excluded before calculating the default loss for each candidate to be the largest counterparty. These counterparties are excluded from the largest counterparty default component because they are assumed to have little or no associated counterparty credit risk.

[8] The assumptions related to the largest counterparty default component, including, for example, the recovery rate assumptions, are discussed in detail in the Market Risk Model documentation.

To ensure the group of excluded counterparties reflects the riskiness of the exposures, the Board is proposing to exclude sovereign counterparties to include the United States and those sovereigns with a rating equivalent to "AA-" and above, using the internal ratings developed by firms.[9] If there are discrepancies between these internal ratings, the Board would take the median of the internal ratings. The Board selected the threshold of "AA-" based on a review of the external ratings histories of sovereign obligors that ultimately defaulted. That review indicated that sovereign obligors that were rated "AA-" or above were unlikely to default in the nine-quarter period following such a rating. This approach is also similar to the Basel framework, which is well understood by firms and the public. The updated group of excluded counterparties from this approach would recognize the lower risk of default associated with sovereigns of high credit quality instead of relying on their membership in the G7.

v. Net Revenue Model Changes

a. Pre-Provision Net Revenue Model

The Board is proposing an alternative suite of pre-provision net revenue component models that depart from the current panel regression-based approach. In developing the new proposed models, the Board has prioritized the principles of stability, simplicity, and transparency. Detailed descriptions of the proposed models and current models are available in the comprehensive model documentation, available at https://www.federalreserve.gov/supervisionreg/dfa-stress-tests-2026.htm.

[9] For purposes of this exclusion, consistent with the U.S. capital rule, sovereigns include a central government (including the U.S. government) or an agency, department, ministry, or central bank of a central government. *See* 12 CFR 217.2 ("Sovereign"). For the avoidance of doubt, if the sovereign has a rating equivalent to "AA-" or better, any subsidiary of such sovereign would be an excluded counterparty.

While the regression models in general have demonstrated good forecasting performance across time, they are subject to certain limitations. For example, the use of the regression models usually requires re-estimation every stress test year. In addition, the dependence on lagged performance introduced by certain features of regression models with autoregressive terms contributes to the volatility in projections that runs counter to the principles of robustness and stability.

For components of net interest income, the proposed framework prioritizes models that use granular position data, typically available in the confidential supervisory regulatory schedules in the FR Y-14. Such granular structural approaches tie the projection model close to firms' actual assets and liabilities at the start of the forecasting period, avoiding the disadvantages of statistical estimation. These granular structural approaches are also conceptually simple and require fewer assumptions than other approaches.

For example, the proposed interest income on loans model uses a granular, bottom-up approach with data from the FR Y-14M and FR Y-14Q regulatory reports. One advantage of this model is the ability to derive changes in interest income in the projected scenario directly from individual loan characteristics, specifically the type of interest rate variability. Similarly, the proposed interest income on interest-bearing balances model is a structural approach that projects income based on the path of the 3-month U.S. Treasury rate on the scenario and the balances at lift-off.

The Board also proposes a combined model for interest income and interest expense on trading assets which is a newly specified panel regression. The proposed model combines net quantity to avoid challenges in cross-firm comparability that could be introduced by differences in the extent of offsetting used in reporting trading assets and liabilities. This is the only

component of net interest income that would be modeled as a regression in the alternative framework given the limitations of calculating projections using reported microdata for instruments in the trading book. This proposed model relies on FR Y-14Q data.

The Board is also considering enhancing its current models by collecting additional data on firms' interest rate risk hedging positions for accounting hedges as part of FR Y-14Q data collection schedules.

For components of noninterest income and expense, granular data are not always available or not relevant. In these cases, the Board is proposing alternative approaches for the calculation projections such as the discount path or efficiency ratio models. These alternative models rely on firm projections. The discount path approach uses firm projections of their own noninterest income to calculate a path of stressed noninterest income projections for stress testing. This approach is conceptually simple and effectively captures the knowledge of the relevant business practices across firms, given challenges faced by the Board in modeling these business practices via the available historical data. Additionally, the efficiency ratio approach leverages the fact that banks' management of expenses is closely related to their income streams. Therefore, this approach would also support the principles of robustness, stability, and conservatism, as the efficiency ratio-based expense projections would by construction rise and fall with the projected income.

b. Operational Risk Model

(1) Discontinuing the Macro-Economic Regression for Operational Risk Losses

The Board is proposing to discontinue the current regression model used to project operational risk losses and instead project losses solely with a distributional model. Additional

details about this change are available in the comprehensive model documentation, available at https://www.federalreserve.gov/supervisionreg/dfa-stress-tests-2026.htm.

The Board currently uses a macro-economic regression model and a distributional model to project operational risk losses. The regression model is sensitive to the impact of large loss events and assumptions made around the timing of when they are recognized. The regression model also performs inconsistently across different recessionary periods in the historical data. In terms of the timing of when operational risk losses are recognized, the current model assumes that a firm realizes the full financial impact of loss events immediately. This assumption is made to promote consistency across data from different firms and to capture the economic impact of operational risk losses. However, many large loss events took several years to unfold, particularly legal events stemming from the 2007–2009 crisis. Therefore, this assumption may not be supported by historical data. In addition to the timing, the regression model is also sensitive to the impact of large loss events (for example, legal settlements), which can be large but are infrequent. This occurs because of the heavy-tailed nature of the data and the fact that many of the largest loss events stem from the 2007–2009 crisis, a period of macroeconomic turmoil. As a result, a small number of loss events can drive model results, making the model less consistent and less stable. Finally, the regression model performs differently across recessions in the estimation sample. While some variation would be expected based on the nature of the recessions, the observed variance may hinder overall model performance during periods of economic stress going forward, which would limit the model's effectiveness in evaluating a firm under economic stress.

To mitigate these issues, the Board is proposing to replace the regression model with a distributional model as the primary approach for projecting operational risk losses. Using the

distributional model mitigates the issues described above as the model does not rely on correlations between operational losses and macro-economic data. As such, the distributional model is not sensitive to the timing of large operational loss events or their relationship with macro-economic factors. Further, as the distributional model produces projections that are unconditional from the macro-economic environment, using the model would mitigate issues around model performance across different recessionary periods. Taken together, this model change would better align with the Board's principles of consistency and comparability, as well as robustness and stability, from the Stress Testing Policy Statement, as projections would be less sensitive to the timing and impact of infrequent large loss events, thereby making them more consistent and more stable.

(2) Adjusting the Operational Risk Scaling Variable

The Board is also proposing to remove components of assets defined as Level 1 High-Quality Liquid Assets (HQLA) for purposes of calculating the Liquidity Coverage Ratio (LCR) when calculating a firm's total consolidated assets for use in the Operational Risk Model to better align with the Board's principles of robustness and stability.

The Board uses a firm's total consolidated assets to scale historical loss amounts to normalize operational losses across firms and over time. When projecting operational losses, estimated scaled loss amounts are converted to dollar amounts by multiplying them by the total consolidated assets of a firm in the quarter prior to the start of the projection period. As such, loss projections for a firm tend to move directionally with the total consolidated assets of the firm. However, total consolidated assets can be volatile at times, leading to volatility in loss projections. To mitigate this volatility, the Board is proposing to remove components of assets

defined as Level 1 HQLA for purposes of calculating the liquidity coverage ratio when calculating a firm's total consolidated assets for use in the operational risk model.[10]

The Board is proposing subtracting these amounts from total consolidated assets as these amounts can be volatile and may fluctuate depending on policy circumstances with little relevance to operational risk. For instance, cash balances increased on the balance sheets of many covered firms during the COVID-19 pandemic, partially as a result of government fiscal and monetary policy. Analysis conducted by the Board shows likely greater stability in operational loss projections through the pandemic period when these assets are removed from the scaling variable.

[10] The Liquidity Coverage Ratio is a measure of the liquidity of a firm's holdings, or the ability of a firm to quickly convert its holdings to cash. For more information on the LCR and HQLA, see the Bank for International Settlements' overview at https://www.bis.org/publ/bcbs238.pdf.